

### **REMARKS**

Applicants have filed this amendment along with an information disclosure statement and a request for continued examination. A minor change has been made to claim 22; lanthanide metals are transition metals and claims 22 and 24 have been amended accordingly. See the discussion on page 7, lines 3-20 of the application.

The following remarks address the rejections in the office action of July 11, 2007. The remarks have been submitted previously but have not yet been considered by the Examiner.

Applicants note that the Examiner made a provisional obviousness-type double patenting rejection over claims in U.S.S.N. 10/913,922. But a terminal disclaimer with respect to U.S.S.N. 10/913,922 was filed in the present case on August 23, 2006; a copy is enclosed. Thus, applicants respectfully request that the rejection be withdrawn.

Applicants have amended claim 2 to address the 35 U.S.C. §112, ¶2 issue raised by the Examiner.

Claim 22, 23, 27-30, 32-25, and 49-52 were rejected under 35 U.S.C. §102(b) in view of Passaniti et al., U.S. Pat. 6,001,508 ("Passaniti"). Passaniti discloses an AgO cathode including about 6% to 18% by weight AgBiO<sub>3</sub> as a coating to lower impedance. See col. 3, lines 48-55 and Fig. 1. Claim 22, the only independent claim rejected in view of Passaniti, has been amended to exclude silver from the claim using the "hole in the claim" format found acceptable, for example, in In re Johnson, 558 F.2d 1008, 1017-19 (C.C.P.A. 1977). Dependent claim 27 has been amended to exclude AgBiO<sub>3</sub> from the Markush group and dependent claim 52 has been cancelled. As a result, applicants respectfully request that the 35 U.S.C. §102(b) rejection based on Passaniti be withdrawn.

The cathode described by Passaniti is a specific type of cathode that uses a coating of AgBiO<sub>3</sub> to lower the impedance of the AgO cathode. There is no suggestion to use anything other than AgBiO<sub>3</sub> as the coating. Thus, Passaniti's teachings have no relevance to cathodes including other types of primary active materials. Applicants have added new independent claim 53, which specifies that the cathode includes AgBiO<sub>3</sub> and at least 50% by weight of manganese dioxide and/or NiOOH. Support for the 50% by weight lower limit can be found on page 8, line 22. Applicants included the 50% by weight lower limit because Passaniti teaches that only small amounts (2%-12%) of cathode additives such as manganese dioxide and NiOOH should be



included in this cathode. See col. 4, lines 9-14. Thus, Passaniti does not suggest that either of these materials be used in the cathode in larger quantities. In fact, including larger quantities would (eventually) turn the cathode into something other than an AgO cathode.

New claims 54-57 depend directly or indirectly from claim 53.

As discussed above, Passaniti's AgO cathode includes only a coating of AgBiO<sub>3</sub>, and Passaniti is clear that the cathode should include no more than 18% of AgBiO<sub>3</sub> by weight. New independent claim 58 is directed to a cathode that includes at least 30% of AgBiO<sub>3</sub> by weight. Support for this claim can be found on page 9, lines 16-20 of the application. Passaniti does not disclose or suggest a cathode including this much AgBiO<sub>3</sub>.

New claims 59-63 depend directly or indirectly from claim 58. Claim 63 requires at least 40% of AgBiO<sub>3</sub> by weight; support for this claim can be found on page 9, lines 16-20 of the application.

Applicants acknowledge that claims 1-21, 24-26, 31, and 42-48 have been allowed.

The Examiner has rejected claims 22, 23, 27-30, 32-35, and 49-52 as obvious under 35 U.S.C. § 103(a) in view of Passaniti et al., U.S. Pat. 6,001,508 ("Passaniti"). Applicants note that claim 52 was cancelled in the amendment mailed on April 25, 2007.

Only claim 22 among the rejected claims is independent; the remaining claims depend directly or indirectly, from claim 22. In the amendment mailed April 25, 2007, claim 22 was amended to require that the cathode contain an oxide including pentavalent bismuth and a metal other than silver. More specifically, claim 22 reads:

22. (Previously Presented) A primary battery, comprising:  
a cathode comprising

an oxide containing a metal and pentavalent bismuth, the metal being a main group metal, a lanthanide or a transition metal, other than silver, and

an electrochemically active cathode material different from the oxide;

an anode;

a separator between the cathode and the anode; and

an alkaline electrolyte.



Note the requirement that the metal is “a main group metal, a lanthanide or a transition metal, other than silver.” Claims 23 and 27 also were amended to delete “silver” (claim 23) and  $\text{AgBi}_3$  (claim 27) from the recited Markush group. Claim 27 presently is amended to delete  $\text{Ag}_{25}\text{Bi}_3\text{O}_{18}$  for consistency.

Passaniti discloses a cathode including  $\text{Ag}_2\text{O}$  as the cathode active material. The  $\text{Ag}_2\text{O}$  used in the cathode is in the form of  $\text{Ag}_2\text{O}$  particles including  $\text{AgBiO}_3$  as a coating to lower impedance. See col. 3, lines 48-55 and Fig. 1. The particles have the following structure (Fig. 1):

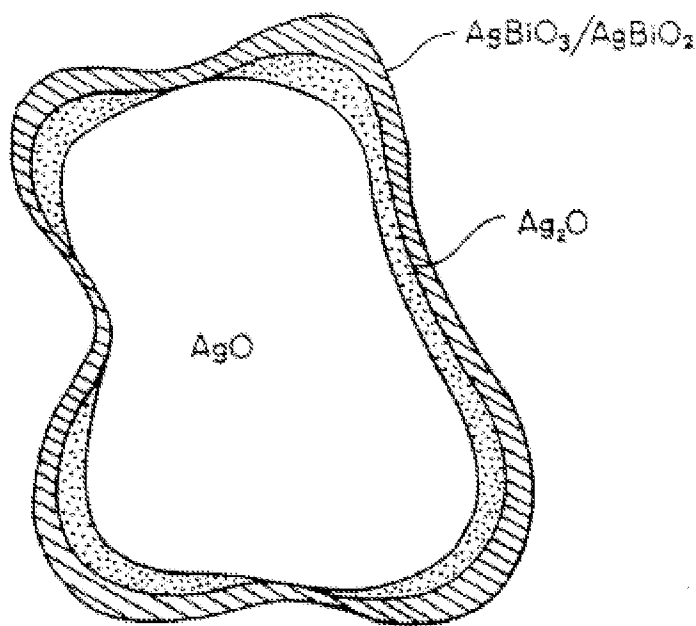


FIG. 1

The bulk of the particle is composed of  $\text{AgO}$  (the large core) or  $\text{Ag}_2\text{O}$  (the inner coating); an outer coating includes  $\text{AgBiO}_3$ .  $\text{AgBiO}_3$  is an oxide including silver and pentavalent bismuth.

The cathode disclosed by Passaniti is excluded from claim 22 because claim 22 requires that the oxide include a metal other than silver and pentavalent bismuth. Applicants believe that the Examiner overlooked this in making the rejection based on Passaniti. Passaniti certainly does not suggest that the coating include an oxide including pentavalent bismuth and some metal



other than silver; the main material in the cathode is  $\text{Ag}_2\text{O}$  and it would not make technical sense to use a metal other than silver in the coating including the pentavalent bismuth.

Applications therefore respectfully request that the 35 U.S.C. § 103(a) rejection of claims 22, 23, 27-30, 32-35, and 49-51 be withdrawn.

The Examiner also did not acknowledge that new claims 53-63 were added in the amendment mailed April 25, 2007. Thus, these claims have not been allowed, rejected, or objected to. The failure by the Examiner to acknowledge new claims 53-63, coupled with the failure of the Examiner to note that claim 52 has been cancelled and that claim 22 does not cover oxides including pentavalent bismuth and silver, makes the undersigned attorney concerned that the amendment mailed on April 25, 2007 was overlooked by the Examiner. The undersigned attorney respectfully requests that the Examiner call him if there is any confusion regarding the claims.

Claims 53-63 include two independent claims, claims 53 and 58. These claims were discussed with respect to Passaniti in the amendment mailed April 25, 2007. To expedite prosecution, application will discuss the claims and Passaniti again below.

Claim 53 relates to a cathode that includes  $\text{AgBiO}_3$  and at least 50% by weight manganese dioxide and/or nickel oxyhydroxide. More specifically, claim 53 reads:

53. (New) A primary battery, comprising:

a cathode comprising  $\text{AgBiO}_3$  and at least 50% by weight of a second cathode active material selected from the group consisting of manganese dioxide and nickel oxyhydroxide;

an anode;

a separator between the cathode and the anode; and

an alkaline electrolyte.

Passaniti mentions that the cathode material can include between about 2% and 12% by weight of a cathode additive such as manganese dioxide or nickel oxyhydroxide. See col. 4, lines 9-14. But the large majority of the cathode material used by Passaniti is either  $\text{AgO}$  or  $\text{Ag}_2\text{O}$ . Passaniti's cathode, after all, is an  $\text{AgO}$  cathode. A person of ordinary skill in the art, reading Passaniti, would not add 50% or more by weight of manganese dioxide or nickel



oxyhydroxide to the cathode. Passaniti's cathode is an AgO cathode, not some other type of cathode.

Claim 58 relates to a cathode that includes at least 30% of AgBiO<sub>3</sub> by weight. More specifically, claim 58 reads:

58. (New) A primary battery, comprising:  
  
a cathode comprising  
  
at least 30% of AgBiO<sub>3</sub> by weight, and  
  
an electrochemically active cathode material different from  
AgBiO<sub>3</sub>;  
an anode;  
  
a separator between the cathode and the anode; and  
  
an alkaline electrolyte.

As discussed above, Passaniti's cathode material largely is composed of AgO and Ag<sub>2</sub>O. A coating including a relatively small (about 6% to about 18% preferably about 12% to about 13%, by weight) of AgBiO<sub>3</sub> is included to lower impedance. See col. 3, lines 51-65. A person of ordinary skill in the art, reading Passaniti, would not include at least 30% of AgBiO<sub>3</sub> by weight in the cathode.

Applicants submit that the claims are in condition for allowance and such action is respectfully requested.

Please charge the \$120.00 Petition for Extension of Time fee and any other charges or credits to deposit account no. 06-1050, referencing attorney docket no. 08935-295001.

Respectfully submitted,

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